

## CLAIMS

- [c1] 1. In a controller, a method for putting an inactive net in a group communication network into a dormant mode, the method comprising:  
determining whether the net has been inactive for a predetermined time period; and  
causing the net to enter the dormant mode if it is determined that the net has been inactive for the predetermined time period.
- [c2] 2. The method of claim 1, wherein the causing includes ordering each participating communication device in the net to release its air-traffic channel.
- [c3] 3. The method of claim 2 further including:  
maintaining sufficient connection for each participating communication device in the net for sending an out-of-dormant command.
- [c4] 4. The method of claim 2, wherein each participating communication device may ignore a go-dormant order.
- [c5] 5. The method of claim 1, further including:  
causing a new communication device attempting to participate in the net to enter the dormant mode.
- [c6] 6. The method of claim 1, further including:  
informing each participating communication device in the net that the net is put in the dormant mode.
- [c7] 7. In a controller, a method for bringing a net in a group communication network out of a dormant mode, the method comprising:  
receiving a floor-control request from a participating communication device in the net;  
and  
bringing the net out of the dormant mode if the request is granted.

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- [c8] 8. The method of claim 7, wherein the bringing the net out of the dormant mode includes sending wake-up commands to participating communication devices in the net before bringing the net out of the dormant mode.
- [c9] 9. The method of claim 8, further including:  
receiving responses to the wake-up commands from a number of participating communication devices in the net before bringing the net out of the dormant mode; and  
bringing the net out of the dormant mode if the number exceeds a predetermined threshold number.
- [c10] 10. The method of claim 9, further including:  
un-registering communication devices that fail to respond to the wake-up requests within a predetermined time period.
- [c11] 11. The method of claim 10, further including:  
re-registering a communication device that later asks to re-join the net.
- [c12] 12. The method of claim 8, further including:  
bringing the net out of the dormant mode after a predetermined time period following sending the wake-up requests.
- [c13] 13. The method of claim 7, further including:  
buffering information received from the participating communication device before bringing the net out of the dormant mode.
- [c14] 14. The method of claim 7, wherein the receiving includes receiving the floor-control request from a push-to-talk (PTT) device.
- [c15] 15. In a controller, a computer-readable medium embodying a method for putting an inactive net in a group communication network into a dormant mode, the method comprising:  
determining whether the net has been inactive for a predetermined time period; and  
causing the net to enter the dormant mode if it is determined that the net has been inactive for the predetermined time period.

- [c16] 16. In a controller, a computer-readable medium embodying a method for bringing a net in a group communication network out of a dormant mode, the method comprising:
- receiving a floor-control request from a participating communication device in the net;
  - and
  - bringing the net out of the dormant mode if the request is granted.
- [c17] 17. A controller for bringing a net in a group communication network out of a dormant mode, comprising:
- means for receiving a floor-control request from a communication device in the net; and
  - means for bringing the net out of the dormant mode if the request is granted.
- [c18] 18. A controller for putting a net in a group communication network into a dormant mode, comprising:
- means for determining whether the net has been inactive for a predetermined time period;
  - and
  - means for causing the net to enter the dormant mode if it is determined that the net has been inactive for the predetermined time period.
- [c19] 19. A controller for putting an inactive net in a group communication network into a dormant mode, comprising:
- a receiver to receive information over the network;
  - a transmitter to transmit information over the network; and
  - a processor communicatively coupled to the receiver and the transmitter, the processor being capable of:
- determining whether the net has been inactive for a predetermined time period; and
  - causing the net to enter the dormant mode if it is determined that the net has been inactive for the predetermined time period.
- [c20] 20. A controller for bringing a net in a group communication network out of a dormant mode, comprising:
- a receiver to receive information over the network;
  - a transmitter to transmit information over the network; and

a processor communicatively coupled to the receiver and the transmitter, the processor being capable of:

receiving a floor-control request from a participating communication device in the net;  
and  
bringing the net out of the dormant mode if the request is granted.

[c21] 21. In a controller, a method for putting an inactive communication device in a group communication network into a dormant mode, the method comprising:

determining whether the communication device has been inactive for a predetermined time period; and

causing the communication device to enter the dormant mode if it is determined that the communication device has been inactive for the predetermined time period.

[c22] 22. The method of claim 21, wherein the causing includes ordering the communication device to release its air-traffic channel.

[c23] 23. The method of claim 22 further including:  
maintaining sufficient connection for the communication device for sending an out-of-dormant command.

[c24] 24. The method of claim 22, wherein the communication device may ignore a go-dormant order.

[c25] 25. In a controller, a method for bringing a communication device in a group communication network out of a dormant mode, the method comprising:  
receiving a floor-control request; and  
bringing the communication device out of the dormant mode if the request is granted.

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